

XXV. *On the Neottia gemmipara of Smith.* By CHARLES C. BABINGTON, Esq.,
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THE good fortune having occurred to me of being one of the very few botanists who have seen the rare Irish plant called *Neottia gemmipara* by Sir J. E. Smith, I have drawn up the following description of fresh specimens; and Mr. Sowerby has kindly presented me with the beautiful drawing represented on the accompanying plate.

Root of two thick fleshy cylindrical blunt tubers, of about an inch long. At the top of the tubers a bud is usually to be found (not a hybernaculum as represented in Eng. Bot. Suppl.), but it is not remarkable or constant enough to require particular notice. Stalk erect, 5 or 6 inches high, glandular above, bearing two or three smooth triangular-lanceolate attenuated sheathing small adpressed leaves. The radical leaves linear-lanceolate, acute, shorter than the stem, about 4 in number, covering the lower half of the stalk, 2 or 3 inches long; the outermost narrowed considerably below and clasping; the others with a long sheathing base, broadest at the top of the sheath. Spike 1 to $1\frac{1}{2}$ inch long, oblong, dense, erect; of from 20 to 30 rather large milk-white flowers closely placed in three spirally-twisted rows, and each accompanied by a smooth triangular-lanceolate bract, the one or two lowermost of which slightly exceed the length of the flowers, but the rest scarcely equal them. Sepals and two upper petals adhering together and connected through a considerable space from their base in front, their tops free, linear, blunt. Lip spatulate, blunt, crenate; its base very broad, thick, glandular externally, channelled by the inflexion of the sides, and almost inclosing the shortly-stalked column, equalling the sepals. Operculum ovate, acute, dark brown, springing from within the hollowed extremity of the column. Rostellum of the stigma deeply bifid with flattened subulate very acute points, having an elongate linear bluntnish dark brown appendage (proscolla) between and extending beyond them. There is a slight blunt projection between the operculum and the rostellum, which seems to represent the intermediate processes which are found in *Spiranthes autumnalis* and *S. æstivalis*.

It will be seen from the above description that the plant under considera-

tion may fairly be referred to the genus *Spiranthes* (included in *Neottia* by Smith), although differing from the other European species in some particulars; the most remarkable of these is the connection of all the sepals with the two upper petals. In appearance it differs greatly, owing to its very dense spike and the arrangement of the flowers in three spiral lines. The idea of its forming a new genus, suggested by Mr. Sowerby from the examination of the dried specimen in the Smithian herbarium, is now proved to be erroneous.

It now becomes necessary to endeavour to determine the identity or otherwise of Smith's *N. gemmipara* with the published species included in the genus *Spiranthes*; and for the opportunity of doing this I have to acknowledge my great obligations to Sir W. J. Hooker, who most kindly allowed me free access to his extensive herbarium.

In his 'Genera and Species of Orchideous Plants' Dr. Lindley points out the affinity of this plant with the *Sp. Romanzoffiana*, Cham., from which it is now found to differ by its much shorter bracts; its blunt, linear and equally broad sepals; and its longer spathulate lip. If, however, we examine another allied species, the *Sp. cernua*, Rich. (*Ophrys cernua*, L.), we find a plant agreeing most exactly with the Irish *N. gemmipara*; indeed, after a careful examination of Drummond's Rocky Mountain specimens of *Sp. cernua*, I am unable to detect the slightest difference. Smith's name must therefore become a synonym. I venture to offer the following specific character for the species.

Spiranthes cernua, Rich.; tuberibus elongato-cylindricis, foliis radicalibus lineari-lanceolatis vaginantibus: exteriori amplexicaule; caulinis triangulari-lanceolatis vaginantibus, bracteis floribus brevioribus, spicâ densâ, floribus trifariis, sepalis petalisque æqualibus obtusis cohærentibus; labello oblongo medio nonnihil constricto apice rotundato crenato.

Ophrys cernua, L. *Sp. Pl.* 1340.

Neottia gemmipara, Sm. *Engl. Flor.* iv. p. 36.

Spiranthes cernua et *Sp. gemmipara*, Lindl. *Gen. et Sp. Orch.* 467.

Hab. America Borealis e Terrâ Novâ ad Fort Vancouver usque; etiam apud Bearhaven in Co. Cork Hiberniæ, florens in Augusto Septembrique.

By the favour of the Rev. William Hincks I am enabled to give the follow-

ing extract from Mr. J. Drummond's original journal, where it appears under the date of August the 3rd; no year is stated, but it must have been, in Mr. Hincks's opinion, 1809 or 1810:—"The following day I spent on Bear Island. I found nothing new upon it, but I found a very curious species of *Ophrys*, which I believe to be new, upon the main land opposite the western redoubt, growing in a salt marsh near the shore; it was in very small quantity. I only found two specimens." One of these two is probably the specimen now preserved in Sir J. E. Smith's Herbarium. From that time until recently the plant was not noticed by any botanist; but within the last few years it has been again discovered near to, but probably not in exactly, the original spot by Dr. P. A. Armstrong, a physician resident at Castleton Bearhaven, in the county of Cork, growing in small quantity within less than a mile of that town. He kindly conducted Mr. E. Winterbottom and myself to its station on the 30th of September 1843. We there saw about twelve specimens, several of which had been destroyed by cattle, and all the remainder were in rather an advanced state of flowering. This plant seems to be confined to a very few spots near to the sea-shore of that district, occupying the drier parts of rather boggy fields.

EXPLANATION OF THE PLATE.

TAB. XXXII.

- Fig. 1. *Spiranthes cernua*, natural size.
Fig. 2. A flower and bract, magnified.
Fig. 3. A flower with the sepals and petals removed, to show the column.
Fig. 4. The column of *Spiranthes autumnalis*, to show the difference.